

### **Abstract**

The present invention relates to methods, kits, combinations, and compositions for treating, preventing or reducing the risk of developing a disorder or disease related to, or the symptoms associated with, neurotoxicity in a subject, particularly to beta-amyloid-  
5 induced neurotoxicity and Alzheimer's disease. The compounds of the present invention are biologically active 22*R*-hydroxycholesterol derivatives containing a common spirost-5-en-3-ol structure. The invention further provides a method for inhibiting the formation of amyloid-derived diffusible ligands, by administering to the patient a therapeutically effective amount of 22*R*-hydroxycholesterol or a therapeutically active analog thereof.